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- - DECEMBER 1993 - -



B.A.R.G. NEWS.

Newsletter of the
Ballarat Amateur Radio Group



*Season's
Greetings*



BALLARAT AMATEUR RADIO GROUP INC. EXECUTIVE COMMITTEE 1993/4

			HOME	WORK
PRESIDENT	CLIFF BILSTON	VK3CCB	361249	204321
IMM.PAST PRESIDENT	IAN ROBINSON	VK3FD	358031	379175
VICE PRESIDENT	ERNIE TURNER	VK3DET	317604	
SECRETARY	GEOFF SMITH	VK3ADB	332112	
TREASURER	HARRY HEKKEMA	VK3KGL	357563	
ASST.SECRETARY	JIM WRIGHT	VK3CFB	327563	
PUBLICITY/NEWSLETTER	NORM D'ANGRI	VK3LBA	341613	
EDUCATION OFFICER	TOM GEORGE	VK3DMK	355662	327234
TECHNICAL OFFICER	DICK ANTOZIEWICZ	VK3AEX	323273	
MEMBERS' REPS.	MARY CURNOW	VK3FMC	301927	
	REG CARTER	VK3CAZ	417585	

OFFICERS AND COMMITTEES

OSL MANAGER	DOUG RAPER	VK3VBA	323565	
NET CO-ORDINATOR	JOHN HOGAN	VK3CJH	447414	
AWARDS MANAGER	MAURIE BATT	VK3XEX	422245	
PROPERTY OFFICER	JEFF PIGDON	VK3PAP	327041	311211
HAMVENTION CONVENOR	TOM GEORGE	VK3DMK	355662	327234
LIBRARIAN/HISTORIAN	RICHARD VOSS	VK3JFL	342453	
WICEN COMMITTEE	GORDON CORNELL	VK3FGC	392427	391135
	GEOFF SMITH	VK3ADB	332112	
	TOM GEORGE	VK3DMK	355662	327234
TECHNICAL COMMITTEE	DICK FORRESTER	VK3VU	357663	391001
	DICK ANTOZIEWICZ	VK3AEX	323273	
	IAN MC.DONALD	VK3AXH		
	DAVID MC.CONNELL	VK3YNB		
	BEN ORCHARD	VK3TOP		377836
	MAURIE BATT	VK3XEX	422245	

REPEATERS: VK3RBA - 146.750 MHz. VOICE. MT.BUNINYONG (- OFFSET)
 VK3RBS - 146.900 MHz. VOICE. SMEATON HILL (- OFFSET)
 VK3RPC - 144.750 MHz. PACKET MT.WARRENHEIP
 VK3RBU - 438.475 MHz. VOICE MT.HOLLOWBACK

CLUB NET: THURSDAY NIGHTS AT 8 PM. (8.30 PM.DURING DAYLIGHT SAVING)
 FREQ: 3.610 MHz.+/- QRM.

2 METRE SCRAMBLE: SUNDAY NIGHTS AT 7.50 PM. FREQ:146.425 TO 146.600 MHz.INCL.
 CALL BACK HELD ON BALLARAT REPEATER VK3RBA (146.750 MHz.)

MEETINGS: LAST FRIDAY OF EACH MONTH (EXCEPT DECEMBER) AT 7.30 PM.

VENUE: BALLARAT COMMUNITY EDUCATION CENTRE
 HOPETOUN ST. BALLARAT

FOX HUNTING: AS ARRANGED DURING YEAR

CORRESPONDENCE

NEWSLETTER ARTICLES

LIFE MEMBERS			
MAURIE BATT	VK3XEX	KEVIN HUGHES	VK3WN
IAN MC.DONALD	VK3AXH	PHIL SEDDON	VK3AQM
GEORGE SMALL	VK3DKJ(SK)	STAN WIDGERY	VK3SE
JIM WRIGHT	VK3CFB		

TO
 THE SECRETARY
 B.A.R.G. INC.
 BOX 1261
 MAIL CENTRE
 BALLARAT 3354

TO
 N.D'ANGRI -VK3LBA
 29 LAWRENCE ST.
 ALFREDTON
 BALLARAT 3350
 PHONE 053 341613

DISCLAIMER: While every care is taken in the recording of events & articles in this newsletter, the B.A.R.G.Inc. and it's officers do not accept any liability for any disputed articles or comments. Views expressed are not necessarily those of the Editor or B.A.R.G. officers. Projects are assumed to have been validated by contributors and are presented in good faith. Reproduction of articles by other clubs is permissible, subject to acknowledgement of the source.

(Current 9.10.93)



MINUTES OF THE B.A.R.G. MEETING HELD ON THE 29TH OCTOBER 1993

The meeting opened at 7.45 pm. and Members and Visitors were welcomed by President Cliff VK3CCB.

APOLOGIES were received on behalf of the following: VK3 AEX, NIZ, SE, XDQ, AAI, XEX, VU, AAP, BRZ, AXH, PAP, CJH, WENDY & VAL.

MINUTES of the September meeting, as circulated, were confirmed. CAZ/JFL

CORRESPONDENCE was received from:

1. Ladies support group with thanks for their 'night out'.
2. Spectrum Management Agency - Licence for 432.535 Beacon. (Paid) Permission granted for use of Club call (VK3BML) for Hamvention.
3. Scouts Association - Thanks for JOTA weekend.
4. Various Club Newsletters.

ANH/CIS

KGL/WN

TREASURERS REPORT was circulated and accepted.

OSL MANAGER reported that 54 cards had been received and 66 sent.

PUBLICITY Article in Ballarat Courier re our youngest Amateur Dean VK3LDS.

Various paperwork for Hamvention has been prepared.

EDUCATION New Novice course for 1994 is in preparation.

AWARDS Regrettably no Awards issued this month.

CLUB NET Members wished John VK3CJH our Net Controller a speedy recovery after his recent illness. Reg VK3CAZ reported 9 check ins and wished to emphasize that during Daylight Saving the Net will be commencing at 8.30 pm.

WICEN Gordon VK3FGC reported on the activation of WICEN teams during the recent floods. Authorities were pleased with the performance of Group Members. Gordon is organising WICEN training nights for BARG members which will be held on the 3rd Friday of each month at the SES building in Gillies St. Further advice will be forthcoming when arrangements are completed.

GENERAL BUSINESS

1. The Staff Room at the Education Centre is confirmed as the venue for the Club 'Natter Nights'.
2. Cliff VK3CCB thanked members who participated in JOTA.
3. Foxhunt co-ordinators, Trevor VK3NTA and Ken VK3PDA, requested more support for the foxhunting events each Monday night.
4. "T" shirts bearing the BARG logo are now available, or the logo can be printed on your own shirt. Contact VK3ADB or VK3LEA.
5. Meeting adjourned for coffee break prior to address from our guest speaker, Mr Lee Ditchfield, of the Scouting Association.
6. Discussion on preparations for Hamvention.

NEXT MEETING 26TH NOVEMBER 1993.

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THE PRESIDENT'S MESSAGE

My goodness, where has 1993 gone. As happens with most things that you tend to enjoy it has certainly flown hasn't it?

I find that Xmas time is one of the more rewarding times of the year for radio amateurs, especially if they are making contact with their counterparts in other countries. It is of great interest to make comparisons between Yuletide customs in various parts of the world and our own. Each country has traditional celebrations developed through their religious and cultural beliefs over the centuries, but all have the same fervent plea for peace and goodwill towards all men. It is in this respect that I consider Amateur Radio to be a leader, as we use our many communication skills to override barriers of politics, race and religion to foster fellowship with our distant Amateur friends.

Of course this fellowship is not confined to DX friends, and I am sure that like me you would have generated a wide circle of friends in this country through your participation in our great hobby.

Regardless of the QTH, I would like to make use of this opportunity to wish all of my Amateur Radio friends and their families a very Merry Christmas and a Happy and Healthy New Year.

Stay Safe

Cliff VK3CCB

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B.A.R.G. HAMVENTION '93

Well it's over for another year, and I must say it was easier than 1992 to organise, thanks to all who volunteered to help.

We had a great turnup on the Saturday to shift trestles and clean the area at Bray Raceway, the mess left behind from the previous nights race meeting wasn't as horrendous as we envisaged.

We organised the trestles and helped some of the commercial displays set up, and by late afternoon all looked to be in place, even the weather.

Sunday's weather was great, attendance was excellent, and once again a lot of our members helped to keep things flowing. I didn't get called on the radio very much, so I assume that means there were not too many problems.

The presentations were made during the afternoon, with lots of door prizes, as you will see listed below.

Finally I would like to thank Kevin VK3WN and his helpers who provided the fine lunch and afternoon tea, Jim VK3ANH and his XYL who held the fort at the entrance taking care of ticket sales, and Ken VK3PDA and Trevor VK3NTA for the foxhunts.

Thanks also to all who volunteered to keep the tea, coffee, and soft drinks flowing, who helped with the cleaning, setting up and running the display areas, and provided transport for the train travellers during the day.

73 de Tom VK3DMK

DOOR PRIZE WINNERS:

Ray VK3LRE, Murray VK3AAI, Graeme VK3NE, John VK3IC, Joe Sedony SWL, P.Carter, M.Piechouiak VK3BWP, M.Martin VK3VSM, S.Hayes SWL, D.Giles VK5ANB, W.Lyon VK3YRL

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COMPETITIVE EVENT WINNERS

Hidden Transmitter Hunt: =1st. VK3JMD & VK3BNC, 2nd. VK3BQN.

2 Metre FM Scramble: No logs submitted.

10 Metre Scramble: VK3JMD.

2 Metre FM Scramble: 1st. VK3JMD, 2nd. VK3XDQ

10 Metre Foxhunt: 1st. VK3TZA, 2nd. VK3JMD, 3rd. VK3YQN.

2 Metre Sniffer Hunt: VK3JMD.

70cm.Fox Hunt: 1st. VK3YQN, 2nd. VK3JMD, 3rd. VK3TZA.

80 Metre Fox Hunt: 1st. VK3JMD, 2nd. VK3YQN, 3rd. VK3TZA.

AGGREGATE WINNER: VK3JMD.

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STOP PRESS

A FAMILY EVENT

WIA EASTERN ZONE AMATEUR RADIO CLUB INC.
RADIO AND ELECTRONICS CONVENTION AND LECTURES.- RAYMOND ISLAND

18th. to 20th. February 1994.

SINGLE - DOUBLE - FAMILY CABINS AVAILABLE ALSO CARAVAN AND CAMPING SITES.
FOR MORE INFORMATION OR COPY OF REGISTRATION FORM CONTACT THE EDITOR - VK3LEA

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EXPERIENCING THE VK2ABQ ANTENNA from John (VK3CJB)

I use the word 'experiencing' in the title because it is more comprehensive than 'building' or 'using' the VK2ABQ, and since I have recently built one of these, I thought the experience would make a good article for our Newsletter.

I decided to build the VK2ABQ after reading two articles in Amateur Radio (1) and studying various types of antennae in the ARRL Antenna Handbook. It sounded pretty good, being easy to build, it has a little gain, and is reasonably unobtrusive. In my case it also came up as being moderately easy to install. So I decided to go ahead.

For the essential supporting plate I liked what VK3FMD used - a 600mm square by 6mm thick aluminium plate, but I used two pieces of 6mm aluminium angle, so that the plate would slip on to the 2" water pipe mast with a 'snug fit' and allow clamping with U bolts.

For insulators I used 6mm perspex sheet (later changed to buttons) and the wire for the elements came from the drum of an aircraft tracking antenna (good stuff!) and I believe you can purchase this from suppliers to the light aircraft industry.

The choice of materials for the spreaders is the hardest one to make, having regard for such characteristics as rigidity, weight and durability. Having used cane previously in my old 'spider quad', I found that too whippy and drooping at the ends causing excessive flexing of the wire elements at the corners and subsequent breaking. Bill Rice (VK3ABP) suggested wooden dowels inserted into metal tubing, and Martin Deeley (VK3FMD) used telescopic fibreglass fishing rods. After consideration I selected the Dowels - 22mm into 25mm aluminium tubing and then varnished. I used INTERGRAIN UVC exterior timber finish - a UV curing acrylic polymer which resists radiation, cracking peeling and fungicidal attack. What could be better - I hope!

The dowels fit neatly into the aluminium tubing and to fix them in place I went around the circumference of the aluminium tubing with a centre punch in two places. The length of the aluminium tube is 4'6" (1.37M).

To insulate the aluminium section of the spreaders from the centre plate, I used 12mm square section nylon rod cut into 40mm lengths and shaped it to receive the tubing, and since the aluminium tubing has to be insulated from the mast, it must be insulated from the clamping U bolts - so I cut 12mm lengths off a length of 25mm PVC electrical conduit. The rings thus formed are cut at approx 1/3 their diameter  and the larger section placed over the aluminium tubing - under the U bolts. The use of a heat gun comes in handy.

I was lucky that I still had the egg insulators (porcelain) from my dismembered Spider Quad, and these I suspended on wire hooks made from old coat hangers (#10 zinc coated fencing wire) and in turn these are clamped to the spreaders using screw type hose clamps.

The feed line of course has to be supported and for this a 2 metre x 25mm garden stake is ideal. To connect the co-ax to the elements I mounted a SO239 on high impact plastic and screwed that to the garden stake. All the elements join at the socket and this is then waterproofed with silicone.

..... PTO

EXPERIENCING THE VK2ABQ ANTENNA - Continued.

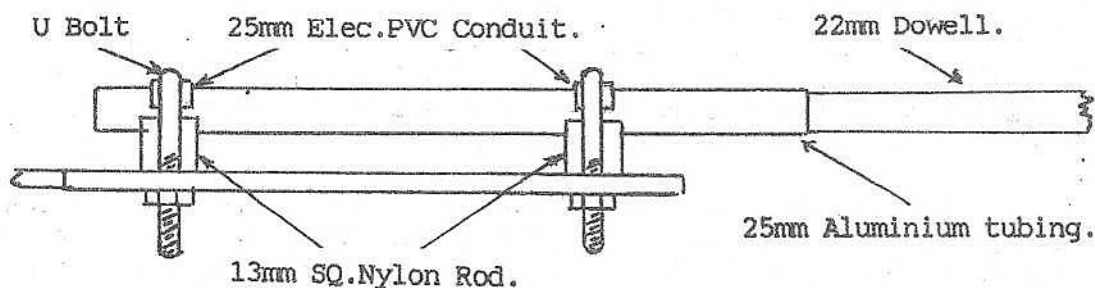
Incidentally - I have a beaut cherry tree in my back yard that fruits prolifically. From time to time, as requirements demand, it has been pruned to act as antenna supports, and now has undergone further surgery so that 'you beaut' antennae can be raised and lowered, we never get any of the cherries anyway!!!

In two previous articles on the VK2ABQ in A.R. October 1990 and May 1992, Bill Rice gave a run down on points in favour of this antenna, and Martin Deeley built his for about \$150.00. In this case the total cost was \$221.00. I had the central support bracket made locally for \$125.00.

Now, without going into detail about the frustration of tuning antennae to the required frequencies, let me say that if you tune to .1 below the desired operating frequency you will be very close when it is raised. In my case the tuning frequencies for the bands were: 28.5 (-2.85) = 25.65mHZ, 21.28 = 19.16mHZ, and 14.28 = 12.855mHZ. If difficulty is encountered trying to get a dip, I suggest using a "shorting loop". This is simply a short length of wire (flexible) with an alligator clip attached to each end which is coiled to form 2 turns (for the GDO coil to enter) and clipped on to the wire element. At the feed point this also accomplishes the necessary task of shorting the feed line.

I mentioned earlier that I changed the insulators from those I made out of 6mm perspex sheet to coat buttons. I did this simply because I had doubts about the dielectric constant of perspex - anyway it is all history now as it is up and working, and although the SWR changes slightly from wet to dry conditions, the initial SWR on all three bands was 1:1.

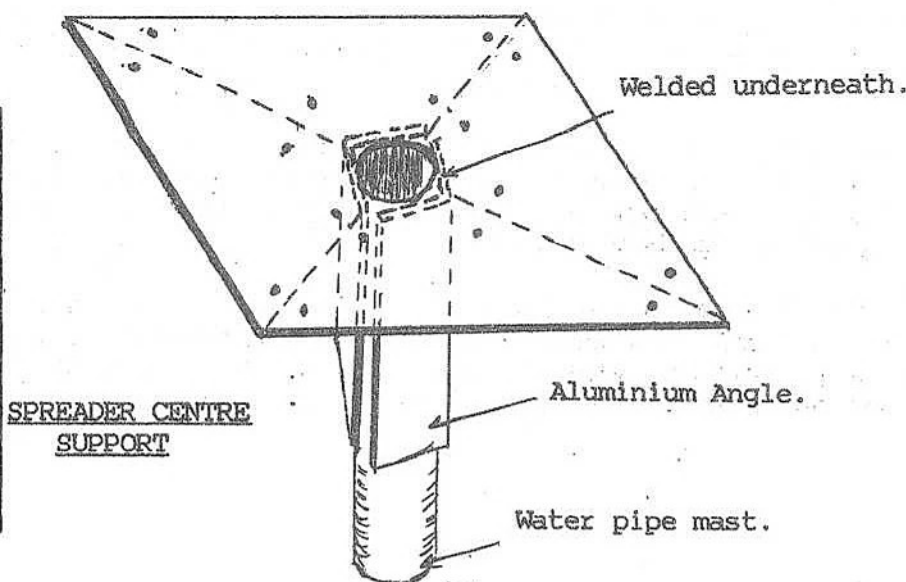
Ref.(1) - Amateur Radio Magazines October 1990 and May 1992.



SPREADER MOUNTING DETAIL

LITERATURE IS AT HAND
FOR THE FOLLOWING:

MOBY TECH - QSL Cards.
SOFT MAIL COMPUTING -
P.C.Accessories Incl.
Mouse Cleaning Kit.
PARCOM - Variable BFO
Kit to suit AM S/W sets
without a BFO.
Contact the Editor VK3LBA
for copies of pamphlets.



BARBECUE AT WHITE SWAN

The day turned out to be an excellent day weatherwise and socially, and was an opportunity to discover who had passed the November Amateur Radio exams, as the results had been sent the week before. A group of athletic minded, if not athletically built, Amateurs took to their bicycles as the method of transport to White Swan. This was eagerly taken down on film by Phil (VK3AQM) who was showing off his recently repaired movie camera. Among the riders were Tim (VK3YOO) and Trevor (VK3YJT) giving Tim's new tandem bike a road test. The day was very well supported and by noon a number of barbecues were going and food cooking. During the afternoon 'audio sniffer' hunts were organised and a number of events for harmonics, and 'not so young' harmonics were conducted.

It was found in the middle of the afternoon that a tree in the picnic area was the home of a koala, whose growls indicated that he was not getting much peace and quiet, with us and other groups below keeping him awake. He then became a reluctant model for cameras, as he proceeded to reposition himself in his tree.

Some other members turned up during the afternoon and some group discussions began to take place, also a Totem Tennis set and a Frisbee appeared, compliments of Kevin (VK3ZHH) and his daughters. Leo (VK3NIQ) arrived and gave a demonstration of his portable vertical antenna, which proved to be interesting to all.

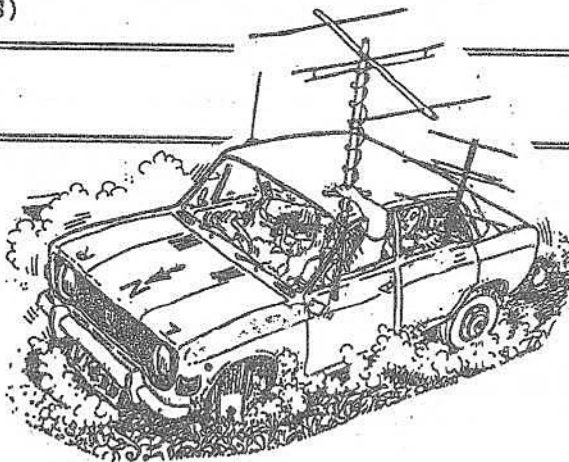
Yours truly succeeded in splitting his trousers and a number of photographs circulating from the day can be seen with a cardigan tied around his waist to stop the draught. Tim and Trevor, on their way back to Ballarat, encountered one of the hazards of bike riding in that they had a flat tyre about 1km. from White Swan. Luckily Stan (VK3SE) reversed to the rescue as he was not far ahead of them when the puncture occurred. It seems that Tim and Trevor were ahead of most of the riders and decided to pick up the nail off the road before any of the rest did, (but in their bike tyre.)

This was another successful B.A.R.G. outing and was very enthusiastically supported.

TOM (VK3YFS)

FOX HUNTING ACTIVE

The B.A.R.G. Foxhunting activities have re-commenced after the Winter break. Hounds are being sought to join in and lessen the fox's chance of survival, so how about coming along to the Ed.Centre on Monday nights at about 7.30pm and share the thrill of the hunt. Passengers are always welcome to train as Navigators. It's a great night. Contact VK3ADB, VK3PDA or VK3NTA for further details.



WICEN

Consideration is being given to hold TRAINING NIGHTS on the 3rd. Friday of each month. The venue will be the S.E.S. building in Gillies St. Sth. (Near RSPCA). Keep tuned for starting date and more information.

CONVERSION PROJECT - VK3KAY

CONVERTING A 27 MHz RADIO TO THE NOVICE SECTION OF 28 MHz.

Ensure that your radio to be converted has a CYBERNET circuit board as found in many early CB sets, (e.g. Apollo, Electrophone CB550 & CB590, and Thorn 1503. This board has the PLL 02A chip, and may have either an 18 or a 40 Channel switch. The 18 channel switch will give a different coverage to the 40 channel version.

	AS SUPPLIED	MODIFIED
18 CHANNEL	27.015 to 27.225	28.295 to 28.505
40 CHANNEL	26.965 to 27.405	28.245 to 28.685

CONVERSION STEPS:

1. Locate pin 8 and cut the trace as close to the pin as possible.
Now it is on 28 MHz.
2. In some positions of the channel selector it jumps 20KHz instead of 10KHz. (eg. CH3 - 27.035. CH4 - 27.055) To fill these gaps either add or subtract 5 volts to pin 15.
3. Adjust the VCO (Voltage controlled Oscillator) to between 0 volts to 5 volts. (e.g. CH1 3.5 volts.)
4. Adjust for maximum output on the power meter by using T4, T5, T6, L7 L11 and L13.
5. Adjust for maximum receiver noise using T7, T8, T9, T1, T2 and T3.
6. Now you should have a 28 MHz. radio, but you may need to go through the alignment procedure 2 or 3 times before you attain the maximum output or RX signal.
7. If you require an 'even' frequency (e.g. 28.490 MHz.) you will need to remove C20 (15pf.Cap.) and readjust CT1.

Should you need a circuit or the board layout, please don't hesitate to let me know.

DOUG (VK3KAY)

THIS MAY HELP YOU

Tired of plugging your stereo earphones into a 'mono' socket and only hearing the signals via one ear ?

Well try this, but make sure there are no external connections to the earphones and watch out for hum.

Swap the screen and the wire to the tip of the plug around (i.e. connect the screening to the tip instead of the body of the jack plug.) Then it doesn't matter whether the socket is 'mono' or 'stereo' both earphones get a signal.

73 de Reg (VK3CAZ)

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B. A. R. G. CALLSIGNS

The following is a list of callsigns held by B.A.R.G. members and other locals and identities as at the 1st. November 1993.

You may find it of some benefit to remove this page and pin it to the shack wall for reference. Could you please notify any errors or alterations.

A	VK3 AAI - Murray	F	VK3 FD - Ian	S	VK3 SE - Stan
	VK3 AAP - Bud		VK3 FGC - Gordon	T	VK3 TDG - Dennis
	VK3 ABI - Gordon		VK3 FIO - Ian		VK3 TOP - Ben
	VK3 ABK - Dick		VK3 FMC - Mary		VK3 TU - Bert
	VK3 ACC - Roger		VK3 FR - Peter	V	VK3 VBA - Doug
	VK3 ACL - ?		VK3 FRO - Eric		VK3 VEJ - Charlie
	VK3 ADB - Geoff	I	VK3 IBM - Ken		VK3 VU - Dick
	VK3 ADX - Merv	J	VK3 JFL - Richard	W	VK3 WN - Kevin
	VK3 AEX - Dick		VK3 JON - ?	X	VK3 XAH - Adrian
	VK3 AGD - Woody	K	VK3 KAV - Ken		VK3 XDQ - Daryl
	VK3 AKS - Peter		VK3 KAW - Merv		VK3 XEX - Maurie
	VK3 AMC - David		VK3 KAY - Doug	Y	VK3 YJM - Jeff
	VK3 ANH - Jim		VK3 KG - Kevin		VK3 YMW - Max
	VK3 AQM - Phil		VK3 KGL - Harry		VK3 YNB - David
	VK3 ASU - Des		VK3 KHN - Robert	Z	VK3 ZCO - John
	VK3 ATA - Ken		VK3 KIT - Leon		VK3 ZHH - Ron
	VK3 AXH - Ian		VK3 KJH - Jim		
B	VK3 BNC - Bob		VK3 KL - Laurie	VK2	VK2 CLM - Leo
	VK3 BQC - Ian		VK3 KQB - Brian	VK4	VK4 CMC - Clarrie
	VK3 BSL - Bill		VK3 KQF - Fred		VK4 DXC - Henry
	VK3 BWC - Paul		VK3 KQQ - Neil		
C	VK3 CAZ - Reg		VK3 KY - Ivor		
	VK3 CCB - Cliff	L	VK3 LBA - Norm		
	VK3 CFB - Jim		VK3 LDB - Daniel		
	VK3 CFD - Ian		VK3 LDC - Dick		
	VK3 CFF - Frank		VK3 LDS - Dean		
	VK3 CFH - John		VK3 LSM - Lyndon		
	VK3 CFI - Maggie		VK3 LU - Jeff		
	VK3 CIS - Ian	M	VK3 MCW - Craig		
	VK3 CJB - John		VK3 MID - Bob		
	VK3 CJH - John		VK3 MIJ - David		
	VK3 CRD - Reg		VK3 MJX - Werner		
	VK3 CUH - Neville		VK3 MKH - Kelly		
	VK3 CYD - Clem		VK3 MLH - Mike		
D	VK3 DAL - Peter	N	VK3 NAS - Alan		
	VK3 DCS - Charlie		VK3 NBM - Barry		
	VK3 DET - Ernie		VK3 NDI - David		
	VK3 DFI - Lou		VK3 NIZ - Ted		
	VK3 DIE - Greg		VK3 NLY - Laurie		
	VK3 DLO - Laurie		VK3 NTA - Trevor		
	VK3 DMK - Tom		VK3 NWN - Keith		
	VK3 DNA - Danny		VK3 NYD - Les		
	VK3 DOK - George	P	VK3 PAP - Jeff		
	VK3 DS - George		VK3 PDA - Ken		
E	VK3 EF - Ian		VK3 PDB - Dabbie		
	VK3 EHP - Damien		VK3 PH - Bill		
	VK3 ESM - Steven		VK3 PRJ - Ron		
			VK3 PUD - Joe		
			VK3 PUI - Ian		

ADDITIONS

VK3 TAR - Mark

VK3 FBI - Neil

B. A. R. G. AWARDS:

D. X. WIDOW'S AWARD: Acknowledge the XYL's patience. (No contacts needed)
Supply name. \$2.00

GOLDRUSH AWARD: Contact 10 B. A. R. G. members. \$3.00

WESTERN DISTRICT AWARD: Contact 10 Western District stations
(includes Ballarat) \$2.00

AWARDS MANAGER: Maurie Batt VK3XEX - RSD Rokewood Junction. - Vic. 3351

Club Net: 3.610 MHz. Thursday Nights 8 pm. (8.30 pm Daylight Saving)

Club Scramble: Sunday Nights 7.50 pm to 7.55 pm.

145.425 MHz to 146.600 MHz. Call back on VK3RBA

Fox Hunting: As arranged during the year. Contact Geoff VK3ADB.

TODAYS TOTALLY USELESS PIECE OF INFORMATION

QUESTION: Why, when a centre fed dipole antenna presents an impedance of 73 ohms do we habitually use 50 ohm coaxial cable in both amateur and professional service ?

ANSWER: The value of 50 ohms was chosen early on in the days of microwaves and high power radars as a compromise and we are still stuck with it.

A ratio of 3.60 between the radii of the outer and inner conductors gives the lowest attenuation due to conductor losses and an impedance Z_0 of 77 ohms.

A ratio of 1.65 maximises the power that can be handled with a given breakdown voltage gradient and this gives a characteristic impedance of 30 ohms.

Since the attenuation in a 50 ohm line is only 10% greater than in a 77 ohm line the compromise is not excessively costly.

Increasing the size of both conductors to increase the air gap (and the voltage limits on the coax.) cannot be carried out indefinitely as once the mean circumference of the dielectric space exceeds one wavelength then other modes of propagation can develop within the coax. and cause serious complications.

So there you are ! There is a reason we use 50 ohm coax. when 75 ohm would be more convenient but it is buried back in the early days of microwave radar around 1942. A long time ago !

73 Reg (VK3CAZ)

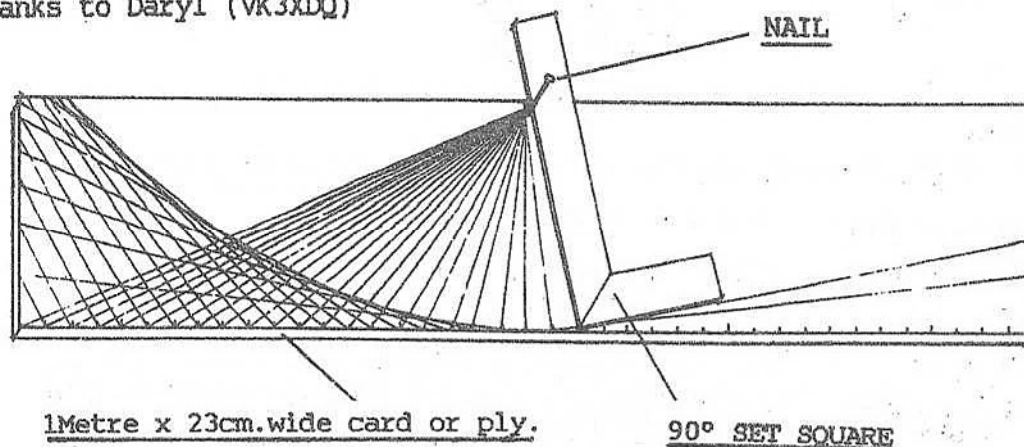
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TRYING TO DRAW THE CURVE FOR A PARABOLIC DISH ? IT'S EASY.

To draw the curve for a parabolic dish take a piece of card or plywood 1Metre long x 23cm. wide and mark out the edge of the long side in 25mm. graduations. Find the centre of the opposite side and drive in a nail 6mm. from the edge, this is the 'focus point' for the parabola.

Use the nail as a pivot point for a 90° set square, the heel of which will slide along the marked edge. Swing the set square gently around the pivot point and when the heel reaches a 25mm. mark draw 2 lines marking the right angle of the set square. As you can see in the diagram, the intersections of these lines when joined will result in the required parabolic curve.

Thanks to Daryl (VK3XDQ)



NOTICE BOARD



COMING EVENTS

November

26th. B. A. R. G. Meeting

December

10th. Natter Night
Xmas Function.

11/12th. ARRL 10m. Cont.

25th. Merry Xmas !

26th. to Jan. 16th.
Ross Hull Mem.
Contest.

January 1994

1st. Happy New Year !

3rd. Val's Birthday

28th. B. A. R. G. Meeting

February

11th. Natter Night

25th. B. A. R. G. Meeting

FOR SALE

KENWOOD TS520S WITH AT180 ATU
\$780.

ICOM IC2S MOBILE RIG.

SOLD

10 ELEMENT CO-PHASED YAGI
2 METRE FM.
\$150.

COMMODORE 64
WITH 1541-2 DISC DRIVE
\$200

LYNDON VK3LSM 053-315881



FOR SALE

KENWOOD TS520S AC/DC
FITTED WITH NEW TUBES
ALSO SPARE SET NEW TUBES

WORKS WELL
\$400

DANNY VK3DNA
053-342818

FOR SALE

TOWER

40ft. 2 section Galv.
Commer. built
In excellent Condition.

SOLD

H.F. TRAPPED VERTICAL ANTENNA
HIDAKA Brand.
3.5 MHz. to 30 MHz.
\$80.

ICOM IC735 HF TRANSCEIVER.
Excellent Condition.
\$1100 O.N.O.

CONTACT ERNIE (VK3DET)
053-317 604

DAYLIGHT SAVING

Please note that during the
period of Daylight Saving
the Club Net will commence
at 8.30pm instead of 8.00pm.

The Sunday Night Scramble
will remain at 7.50pm.

WANTED

A.W.A. SKYRANGER HD5C

Would anybody have any technical
information (circuits etc.) on
this radio please ?

I also have a need for a 140pf
Split Stator Capacitor.

If you could help would you please
contact JOHN VK3CJB on (053) 391014

FOR SALE

Dick Smith HF Trancvr.Kit K6330
Brand new in box - \$180

Realistic AX190 Solid State Recvr.
Ham bands only (not WARC) - \$75

Small 12volt Power Supply

Contact Merv VK3ADX -(053)322584

LETTER TO THE EDITOR

Dear Editor

I am a D X widow
And I've come up with a plan -
A club for all those other wives
Who married a Radio Ham.

The meetings will be regular
(On days of good propagation)
And we can sit around and talk
About the sad state of the Nation.

We could talk of how to bring up kids
When we are left alone,
And what we do to amuse ourselves
When the O M's using 'phone'.

We could ring up Insurance Companies
To insure our Hubbles' lives,
Then ring them back to make a claim
Because we're widows now, not wives.

We could pray for lightning on D X days
So they will have to 'kill' their rigs,
But we'll still go to our meeting
And leave their dinner in the fridge.

We'll not solve all of the problems
That most D X widows will know,
But while our hams 'C Q the world'
Our club will grow and grow.

We could then ask to be taken
To see these foreign lands,
They say there is strength in numbers
Widows - the future's in OUR hands.

73 & 88 - XVI/LBA

REPLY

I think you're only joking,
I hope this is a sham,
But please could we have an hour or two
To call C Q ? PLEASE Ma'am.

(Ed.)



Season's
Greetings



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BI-MONTHLY NEWSLETTER OF THE BALLARAT AMATEUR RADIO GROUP INC.

B. A. R. G. NEWS

AFFIX LABEL HERE

SURFACE MAIL



3354

BALLARAT
MAIL CENTRE
P.O. BOX 1261

IF UNDELIVERABLE RETURN TO: